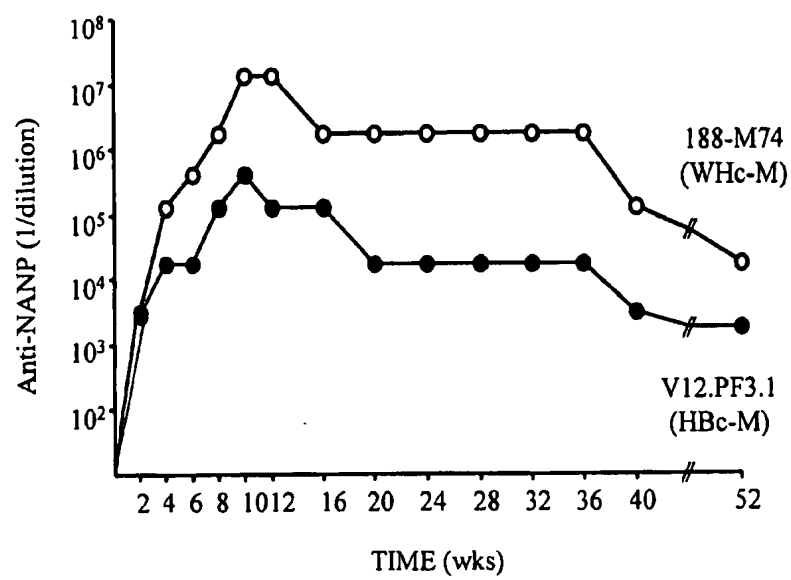
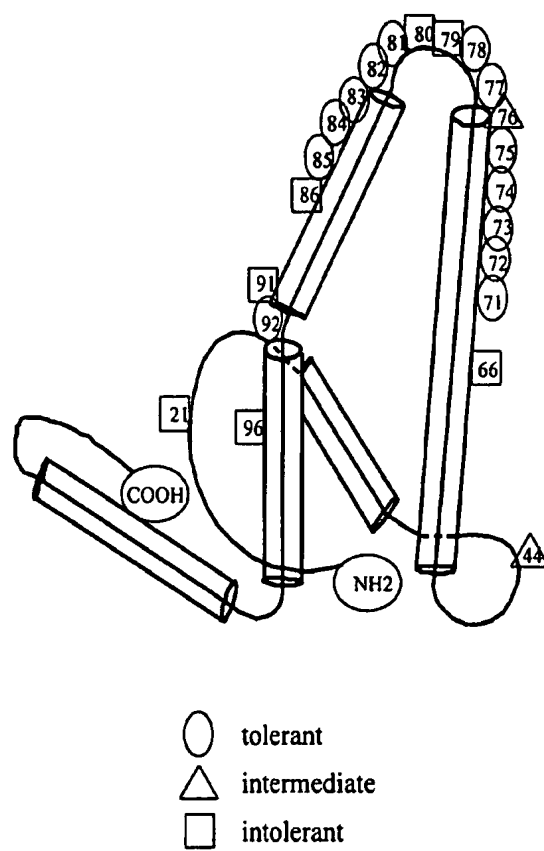


**Fig. 1**



**Fig. 2**



**Fig. 3**



**Fig. 4**

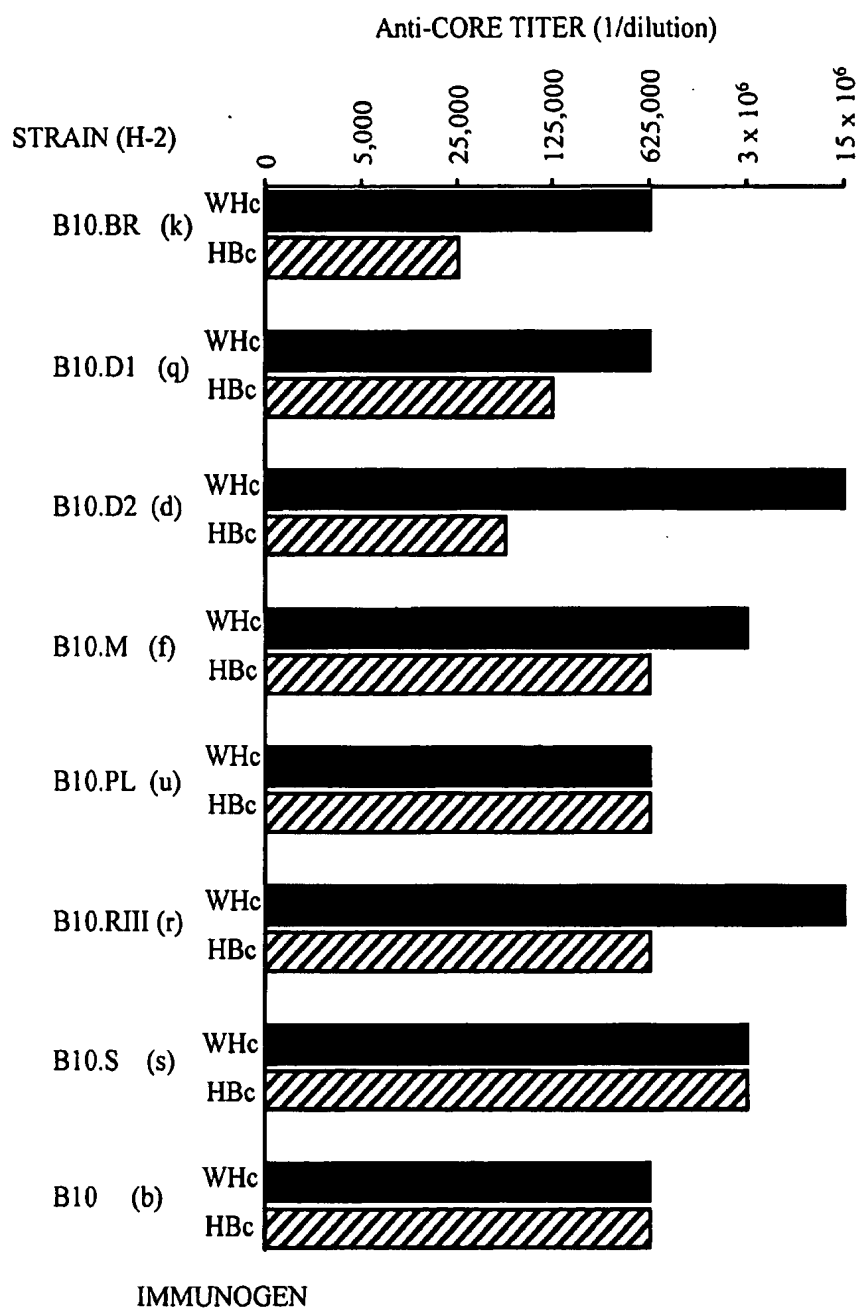


Fig. 5

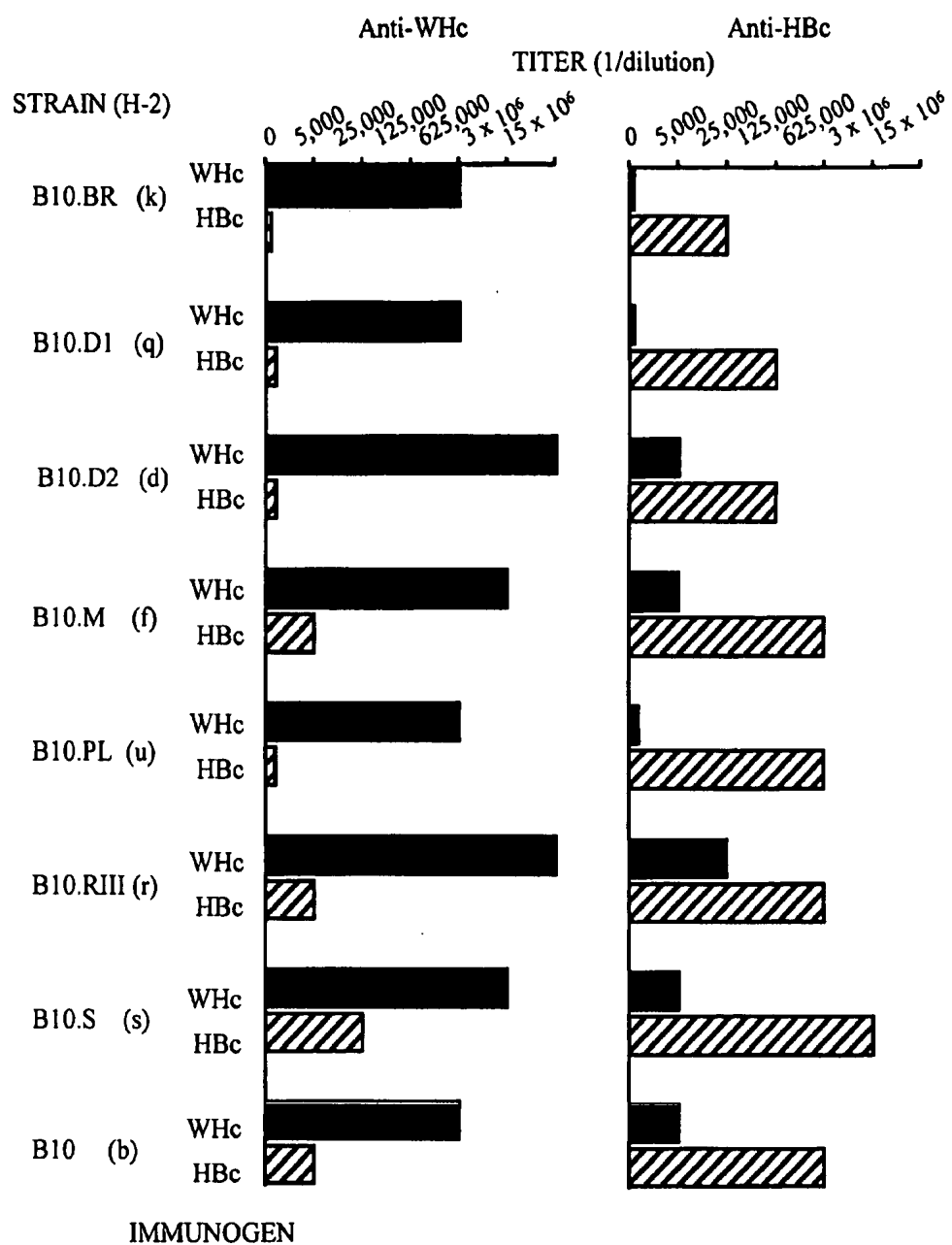
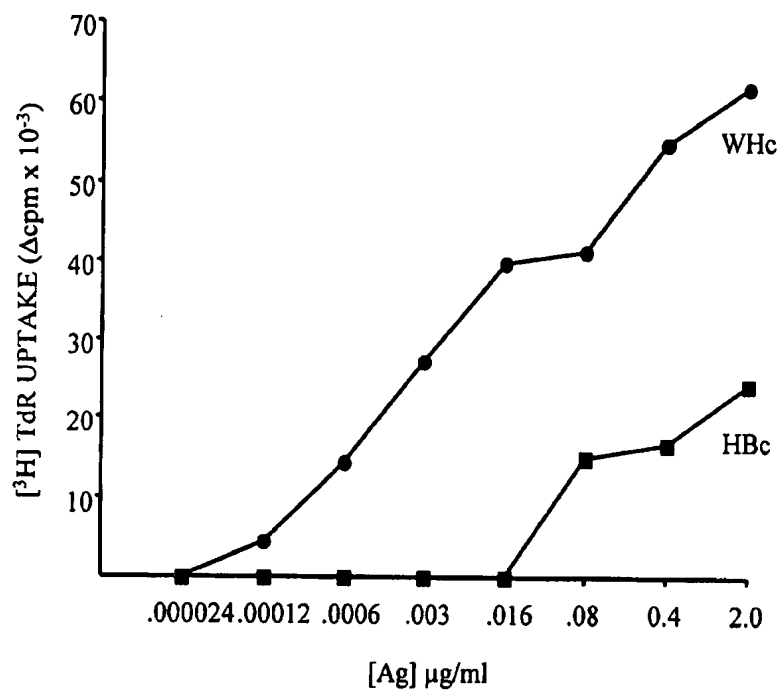
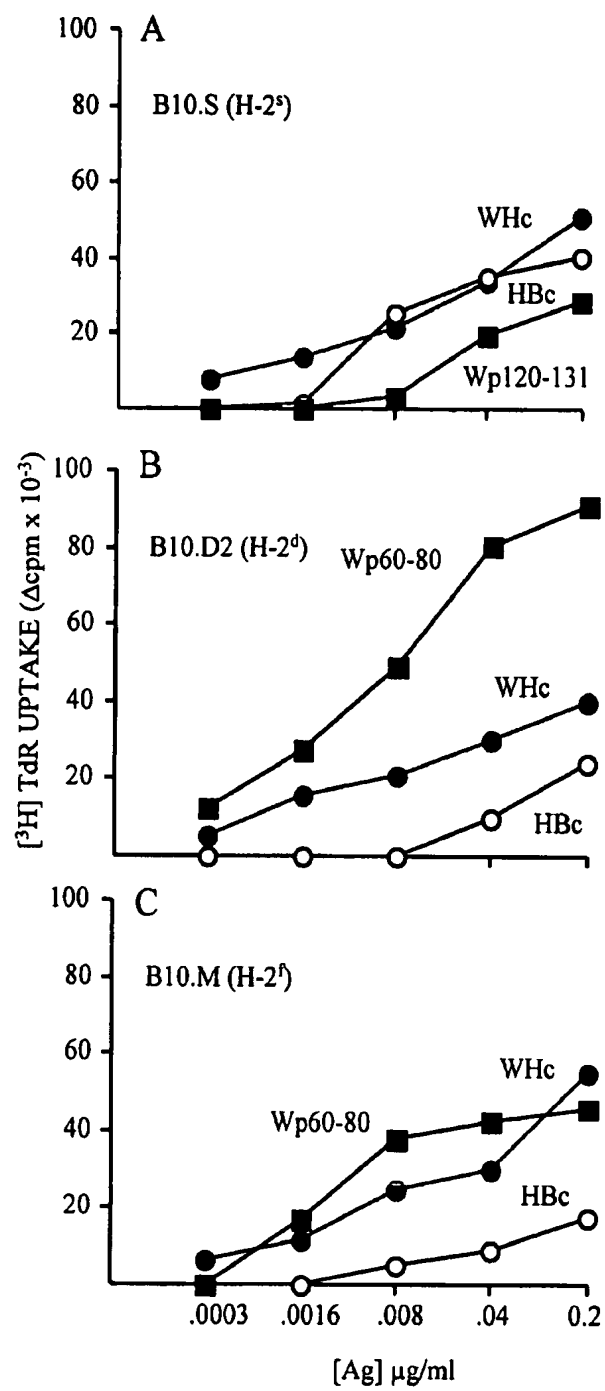


Fig. 6

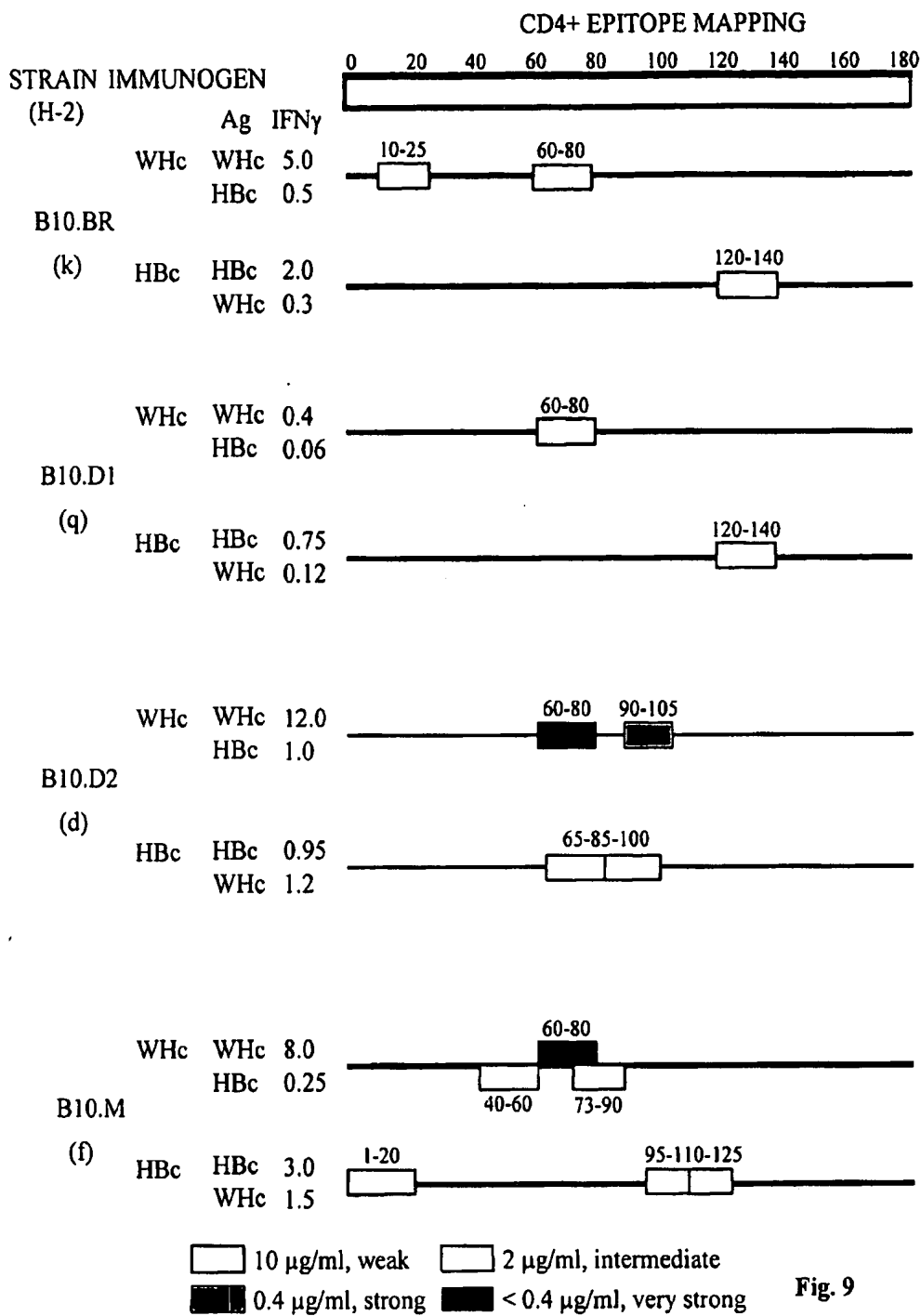


**Fig. 7**

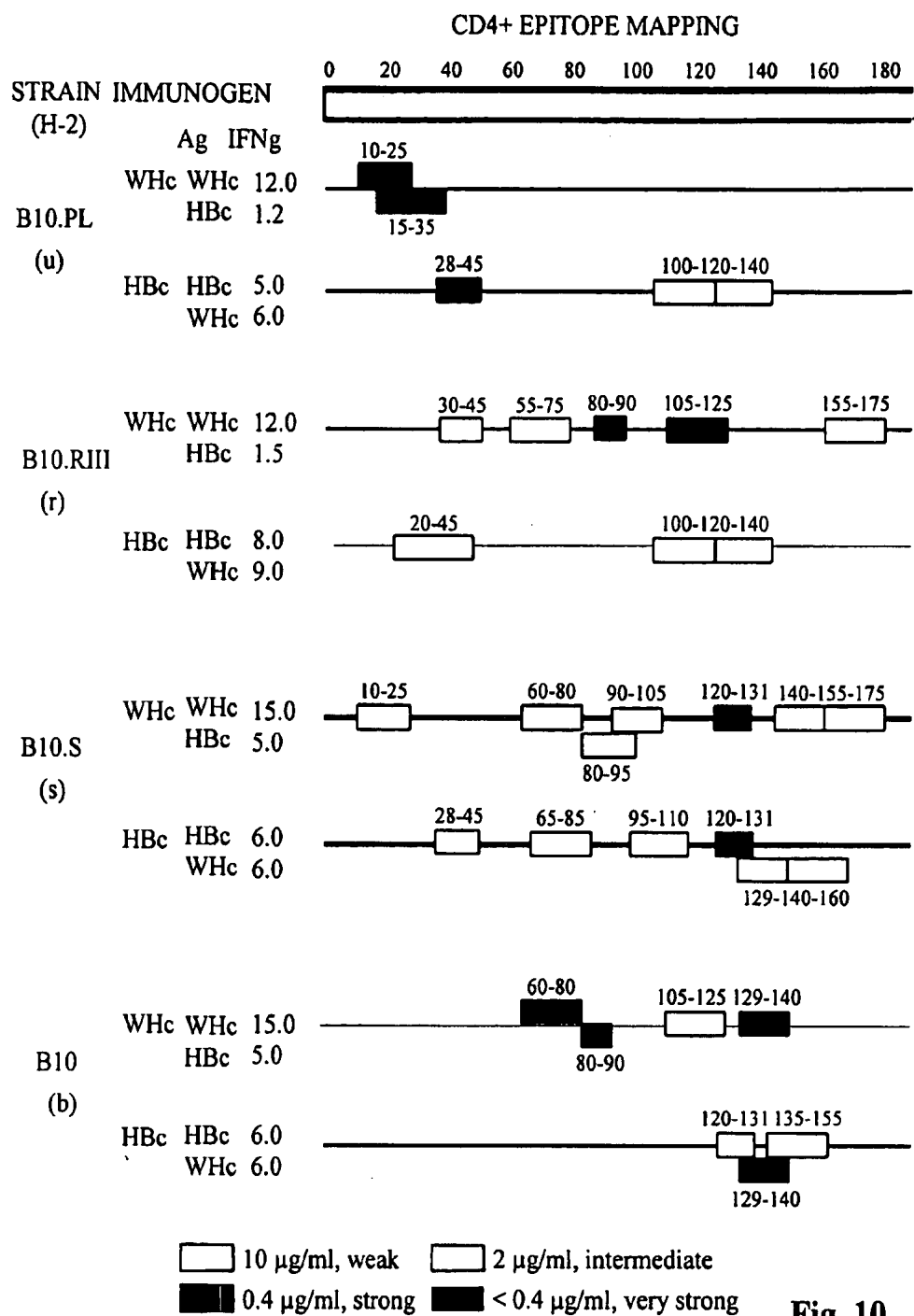


**Fig. 8**

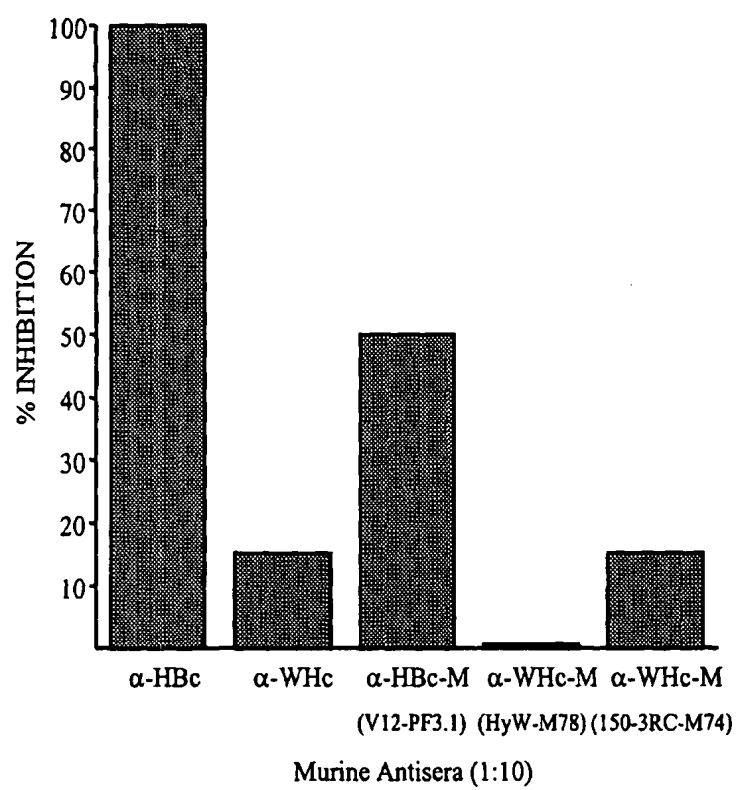




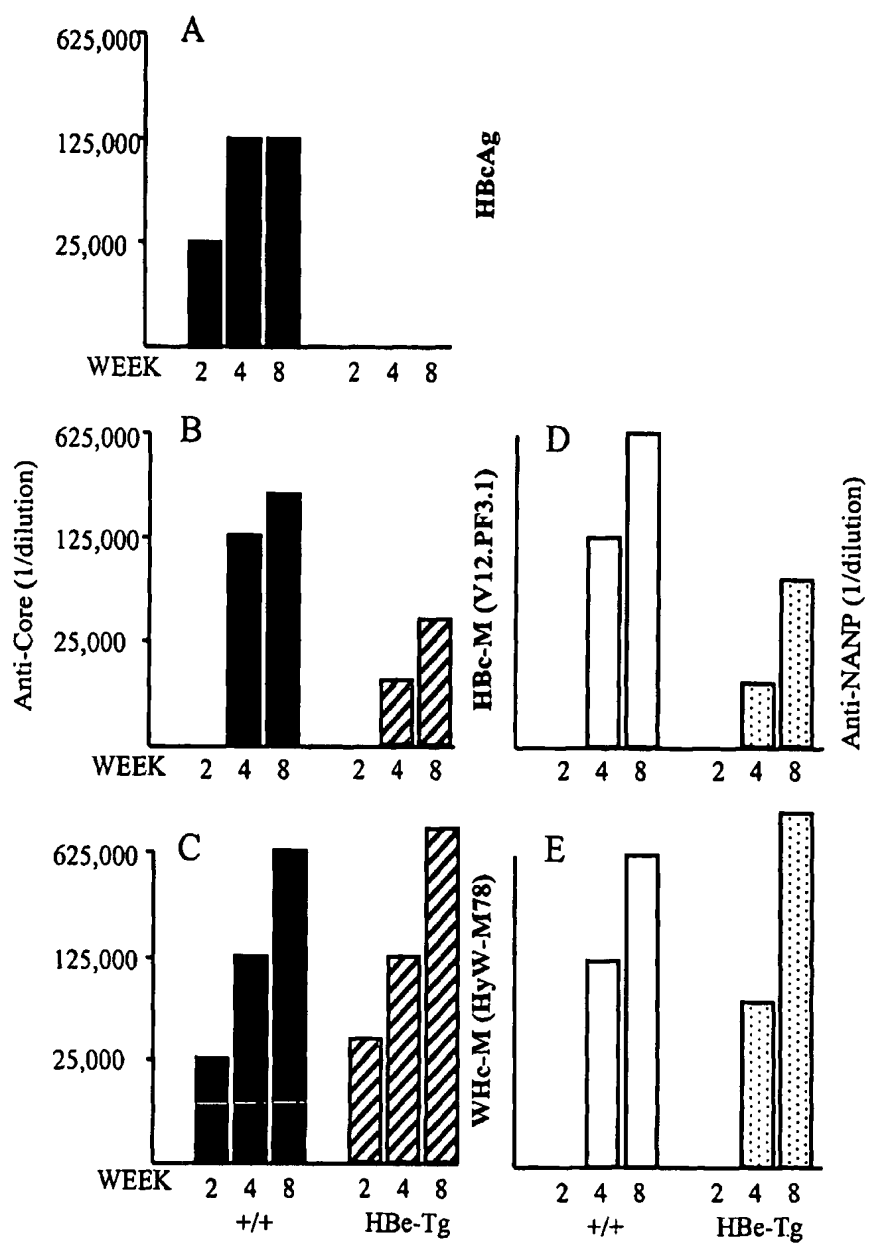
**Fig. 9**



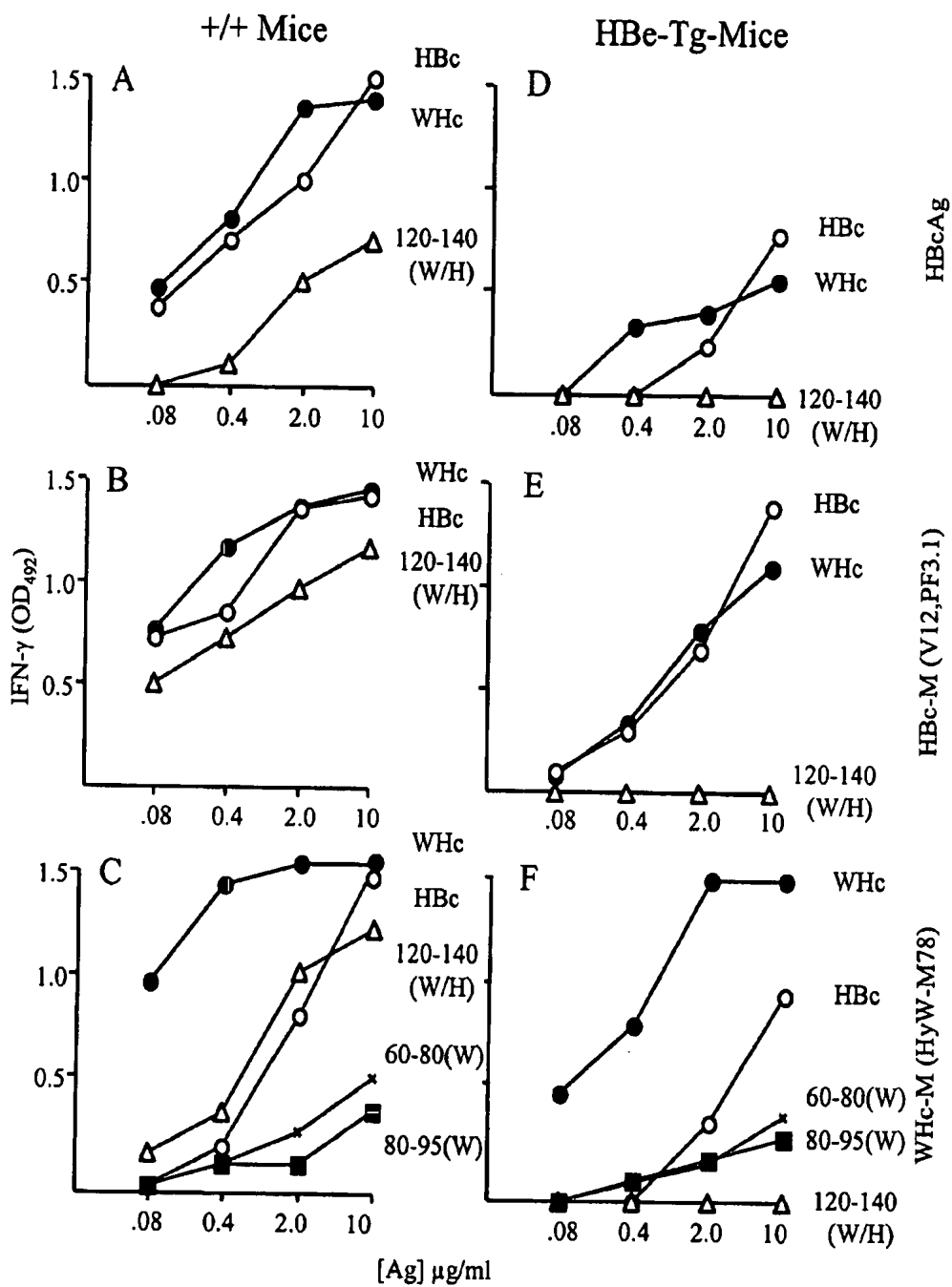
**Fig. 10**



**Fig. 11**



**Fig. 12**



**Fig. 13**

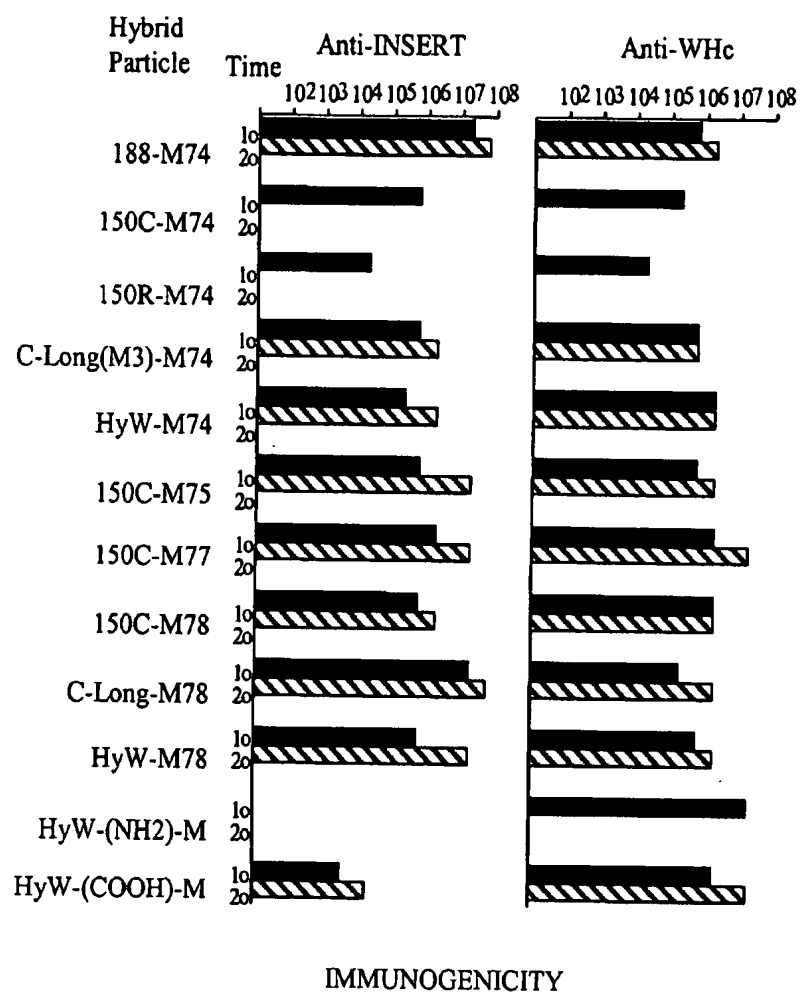
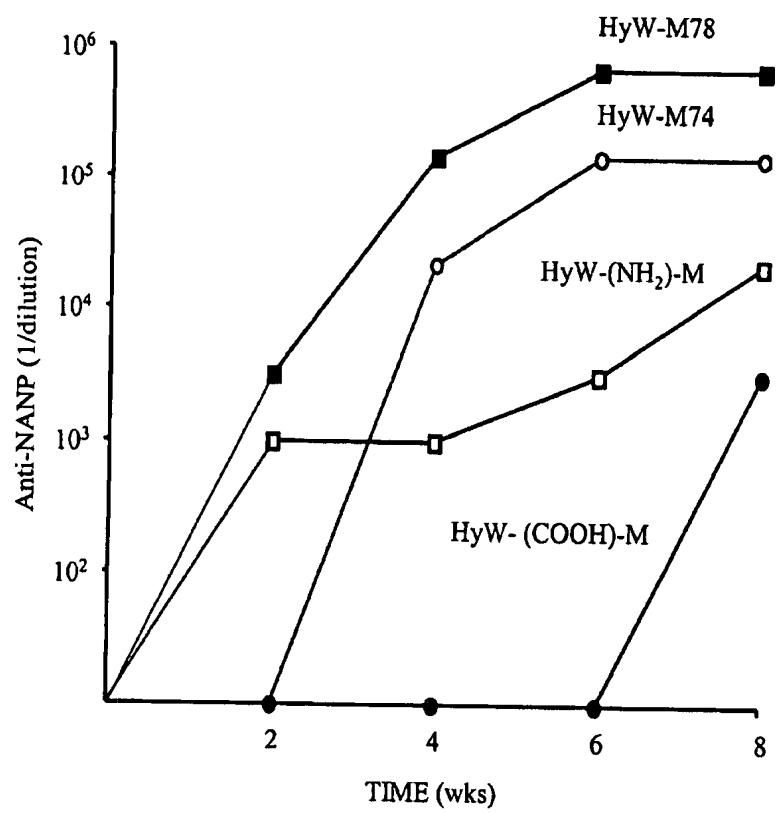


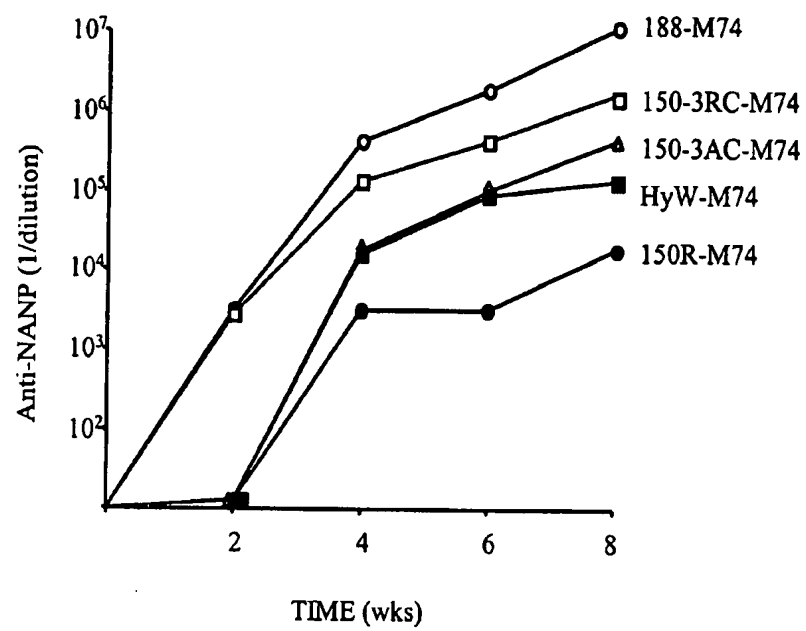
Fig. 14





**Fig. 16**





**Fig. 17**

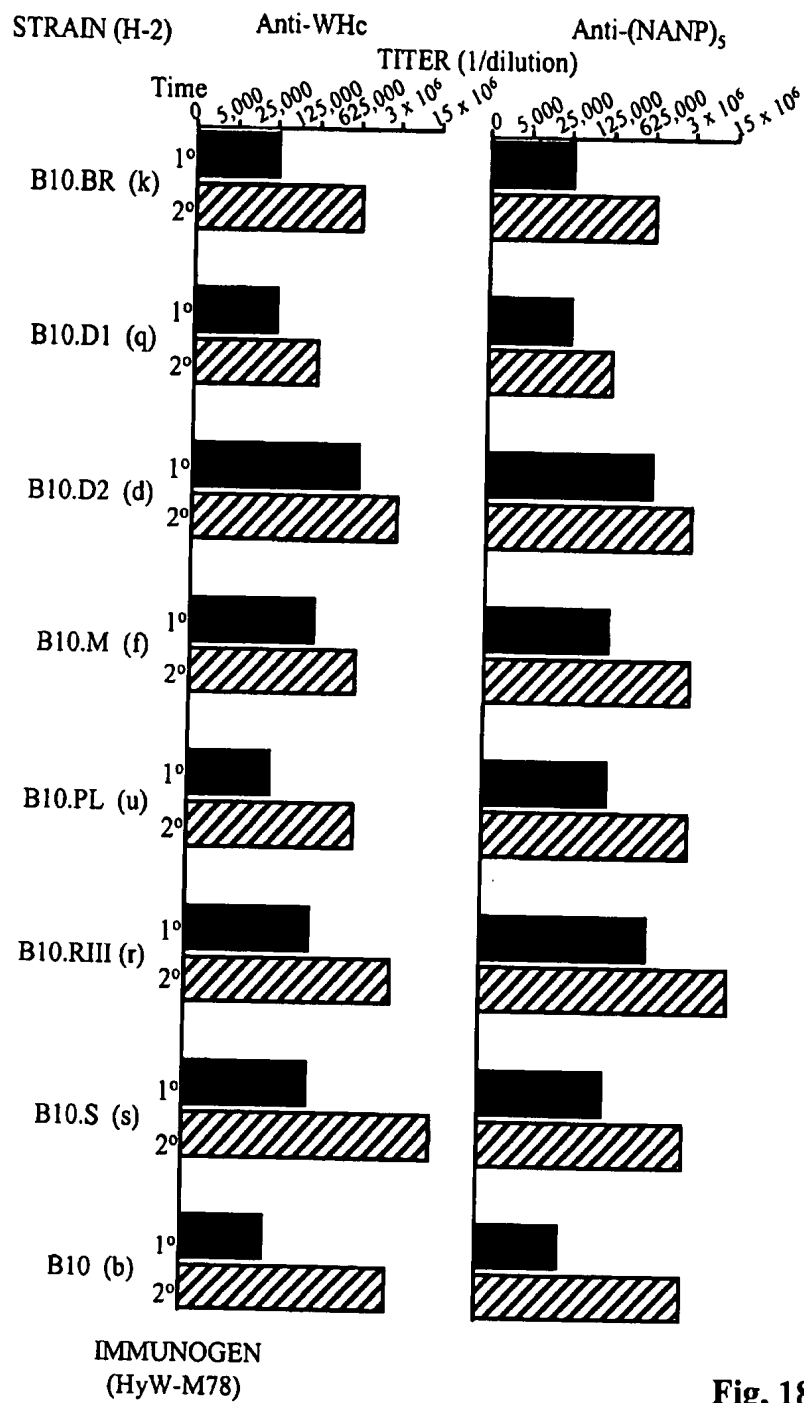
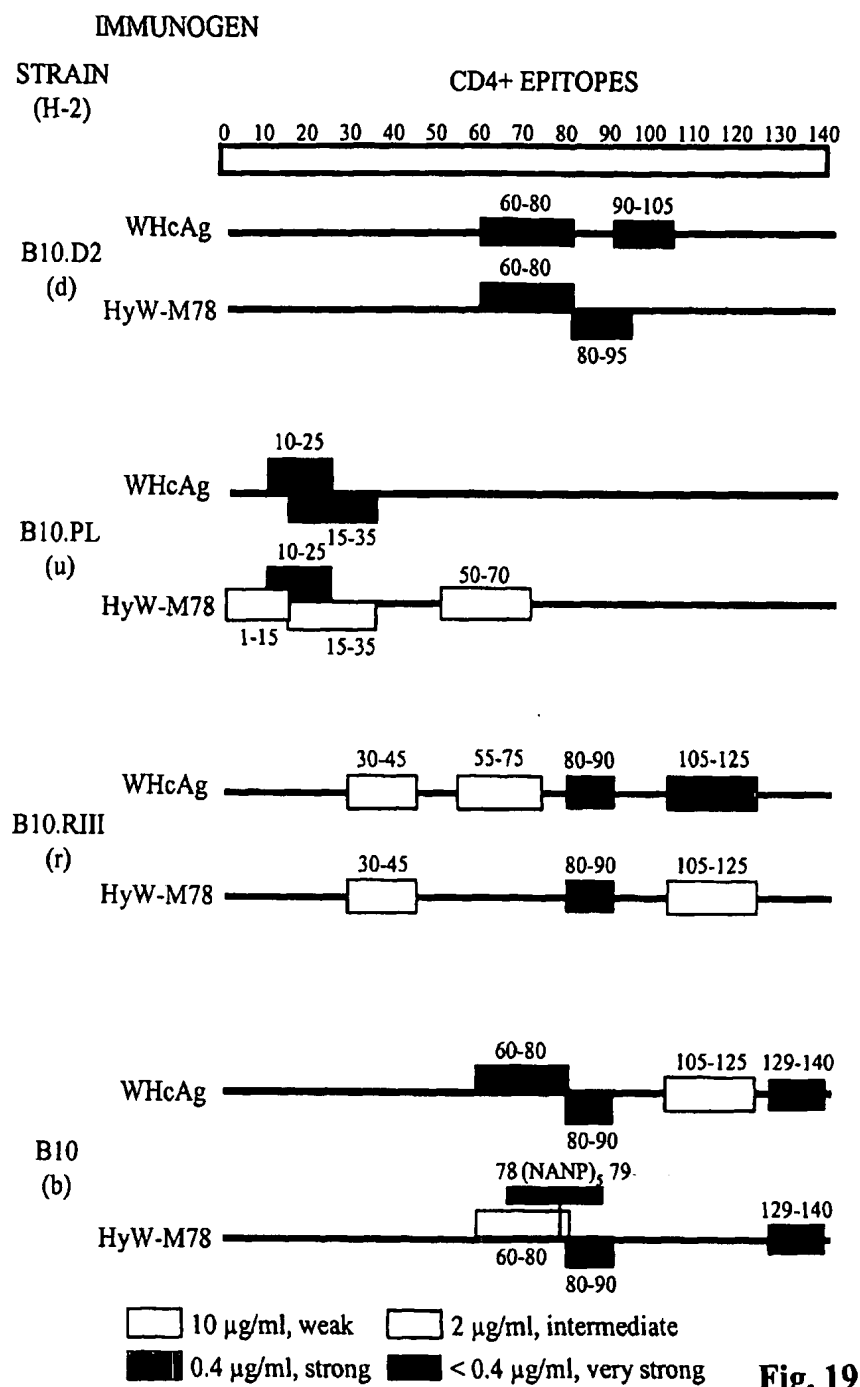
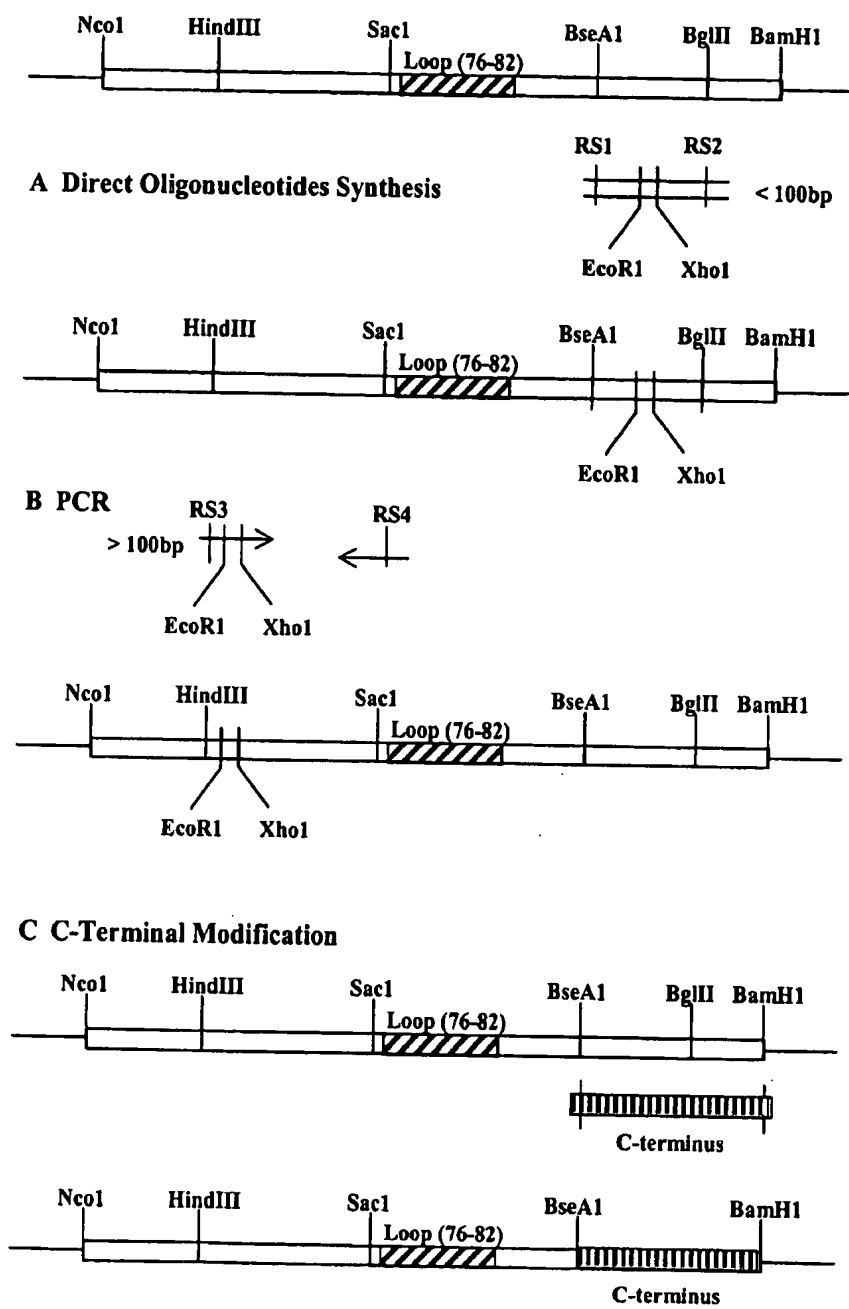
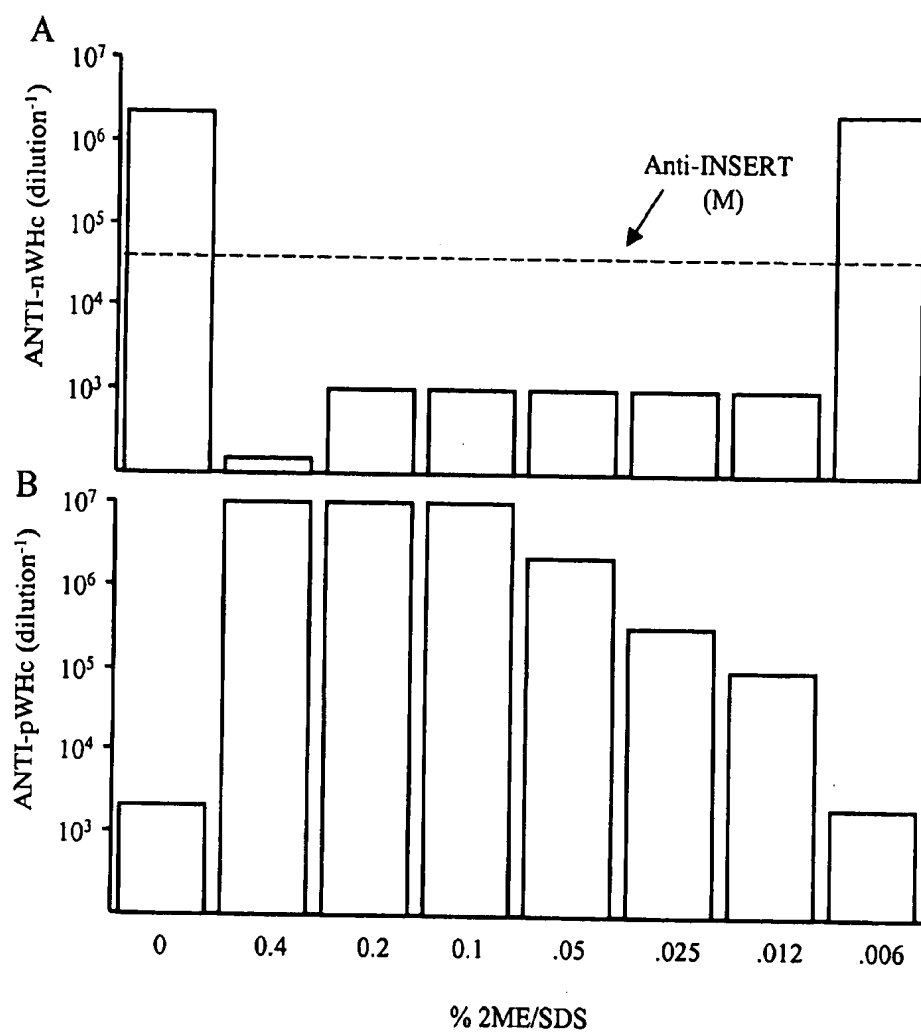


Fig. 18

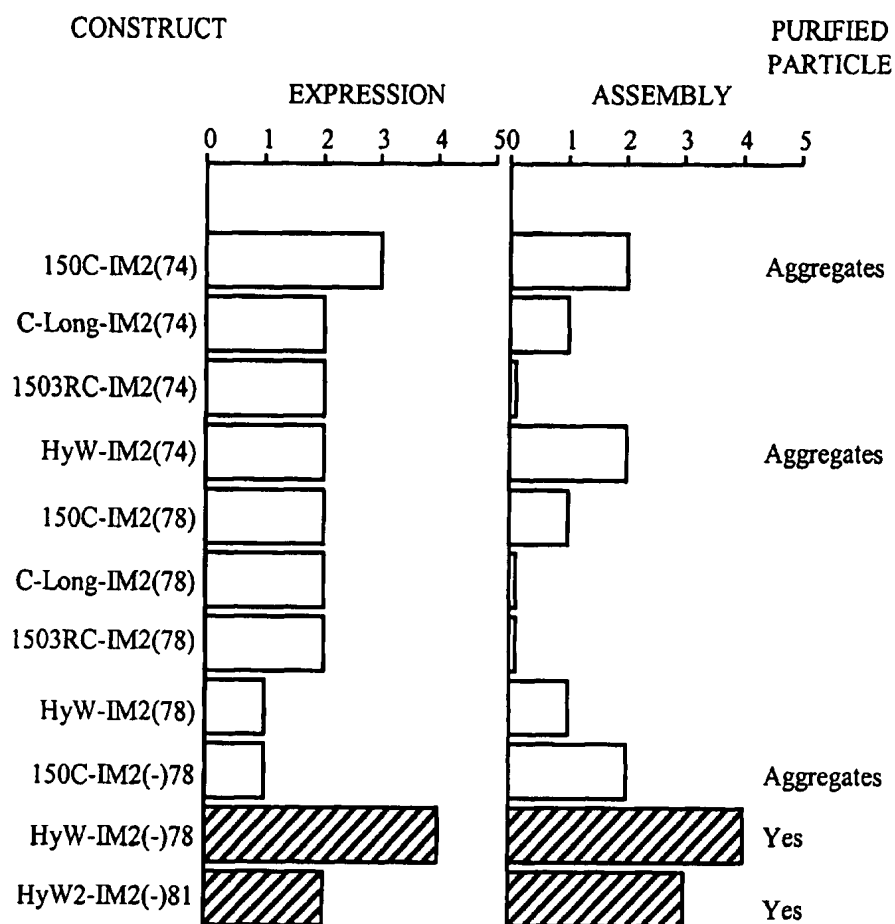




**Fig. 20**



**Fig. 21**

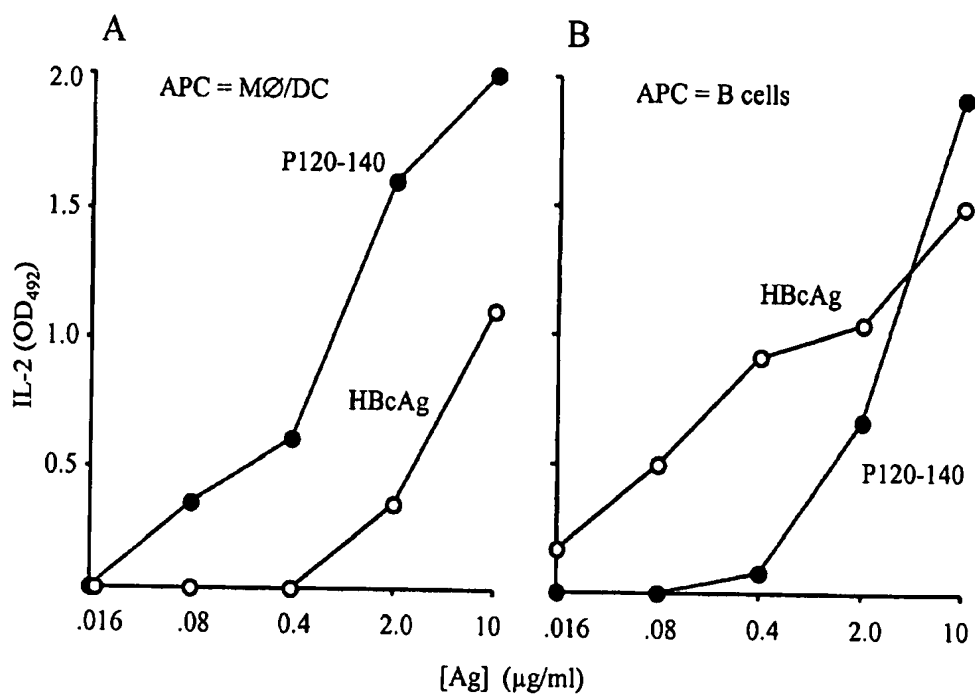


**Fig. 22**

Wt M2e M S L L T E V E T P I R N E W G C R C N D S S D																mAb 14C2	Polyclonal Anti-HyW-IM2(-)78
P1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51200	625000
P2	-	-	-	-	-	-	-	A	-	-	-	-	-	-	-	25600	125000
P3	-	-	-	-	-	-	-	-	A	-	-	-	-	-	-	12800	125000
P4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25600	3 x 10 <sup>6</sup>
P5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6400	625000
P6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1600	625000
P7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12800	3 x 10 <sup>6</sup>
P8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25600	625000
P9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	102400	3 x 10 <sup>6</sup>
Core-IM2(-) Particle																625000	15 x 10
Core-M78 Particle																0	-

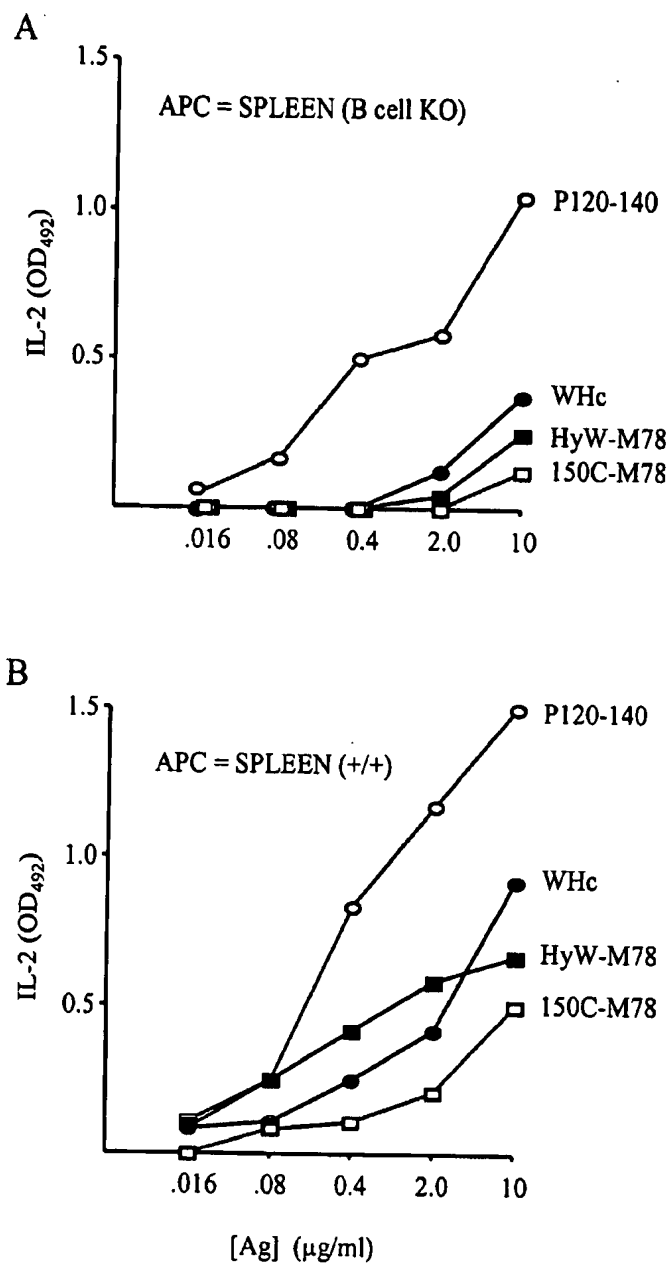
(Dilution=0.5 OD<sub>492</sub>) (1/Dilution)

**Fig. 23**



**Fig. 24**





**Fig. 25**

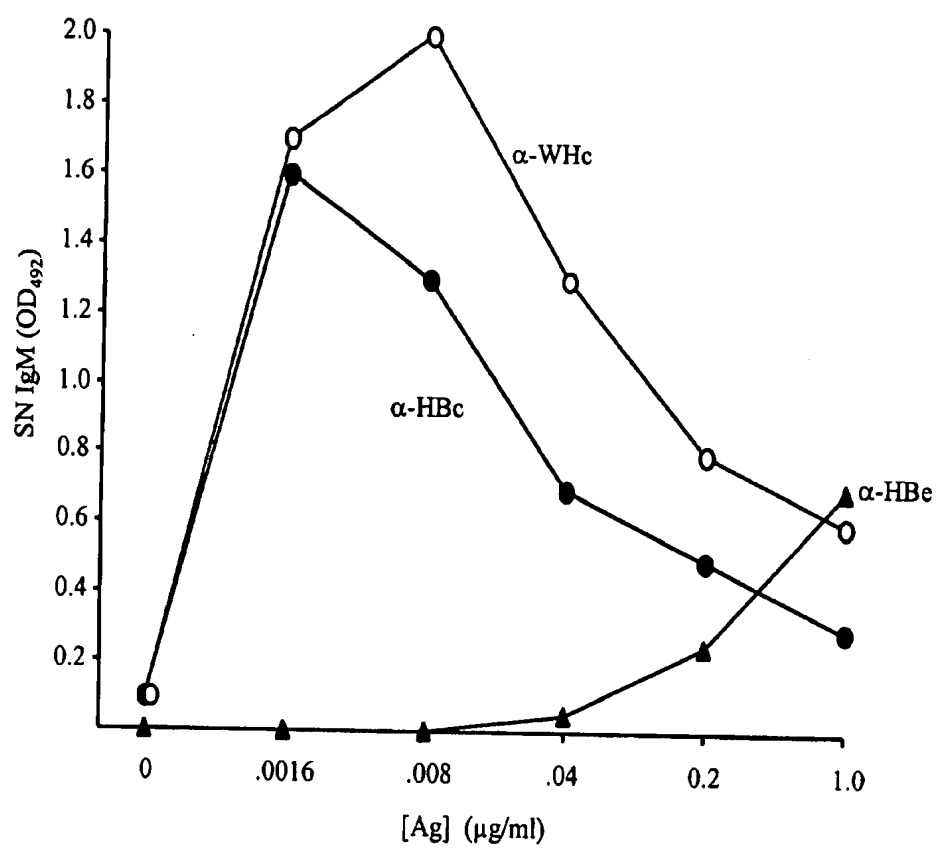
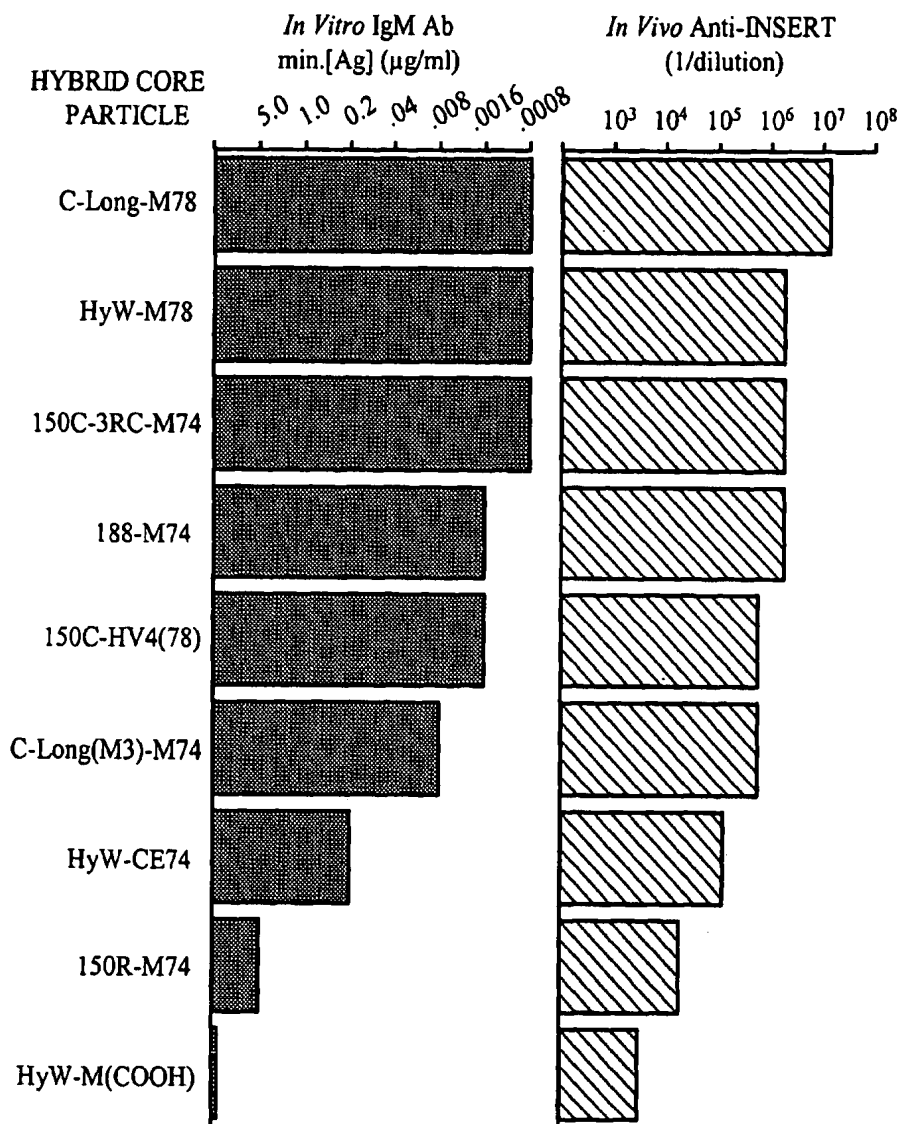
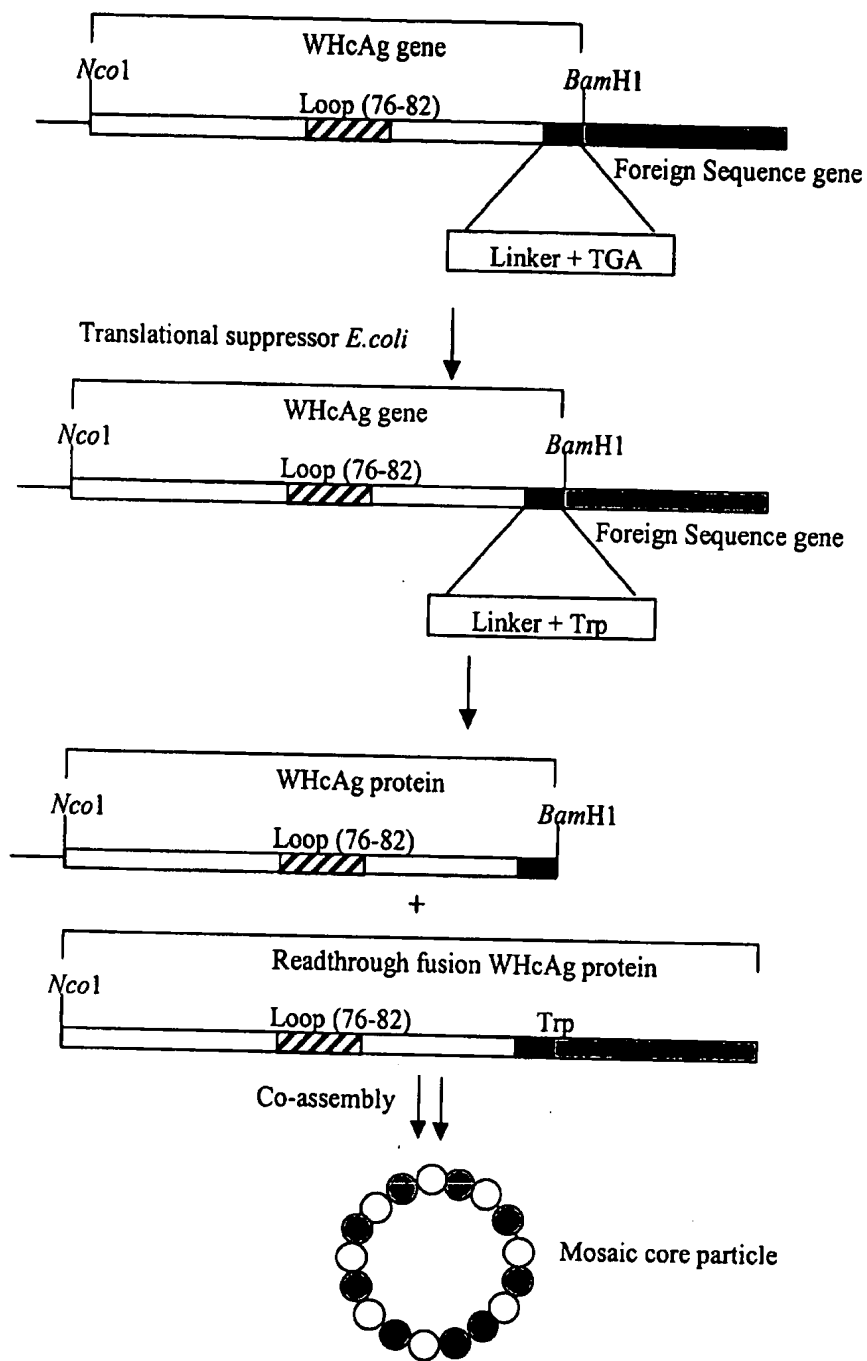


Fig. 26



**Fig. 27**



**Fig. 28**

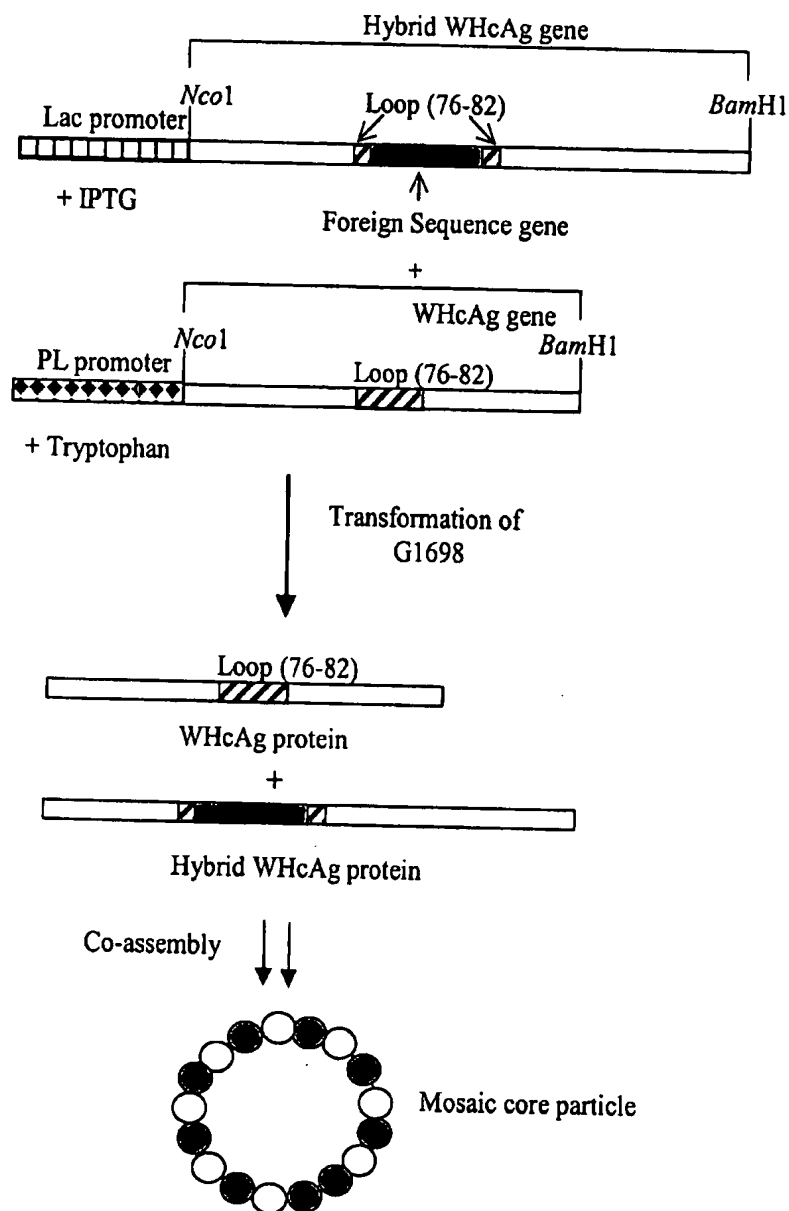
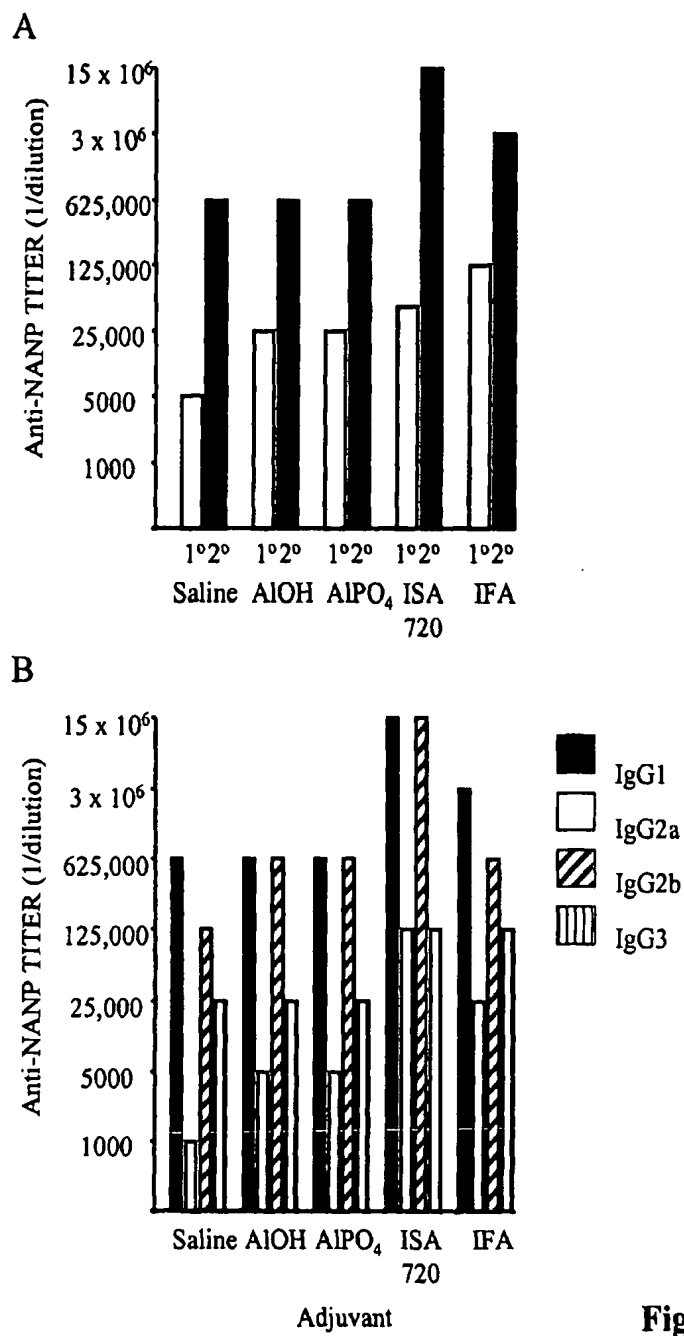
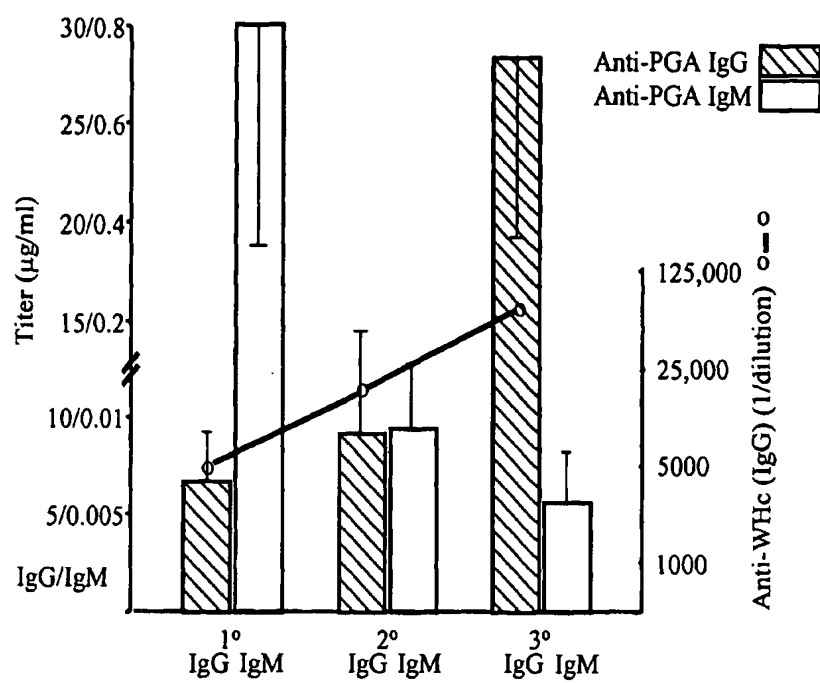


Fig. 29



**Fig. 30**



**Fig. 31**

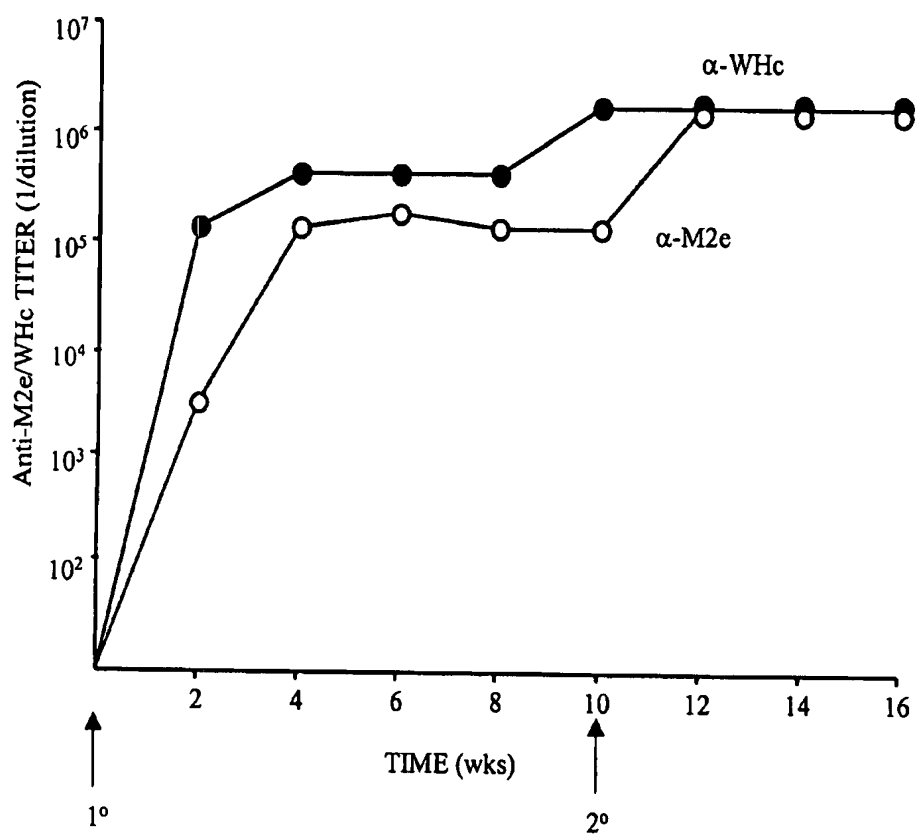
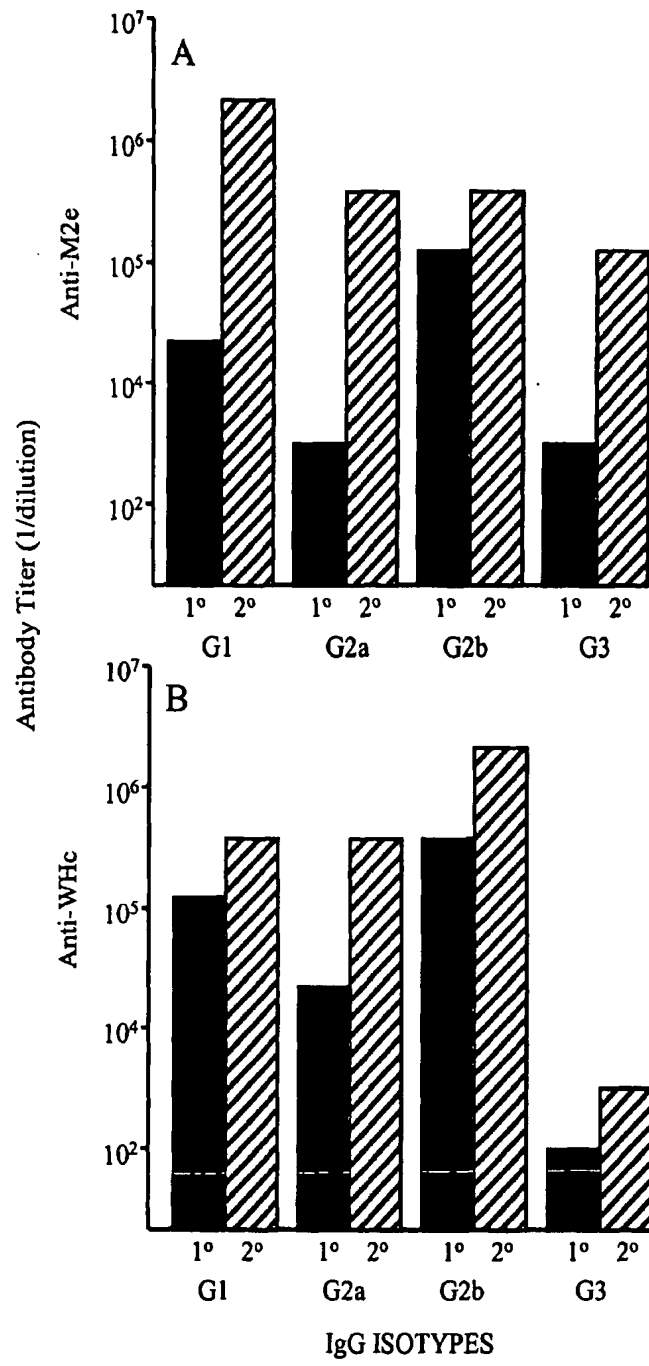


Fig. 32





**Fig. 33**

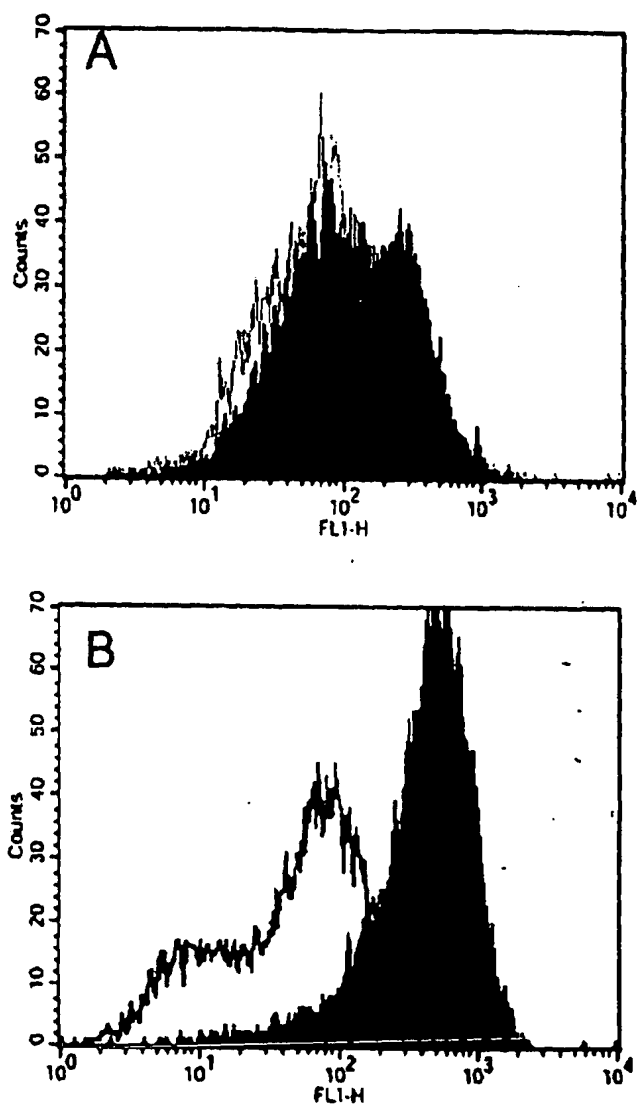
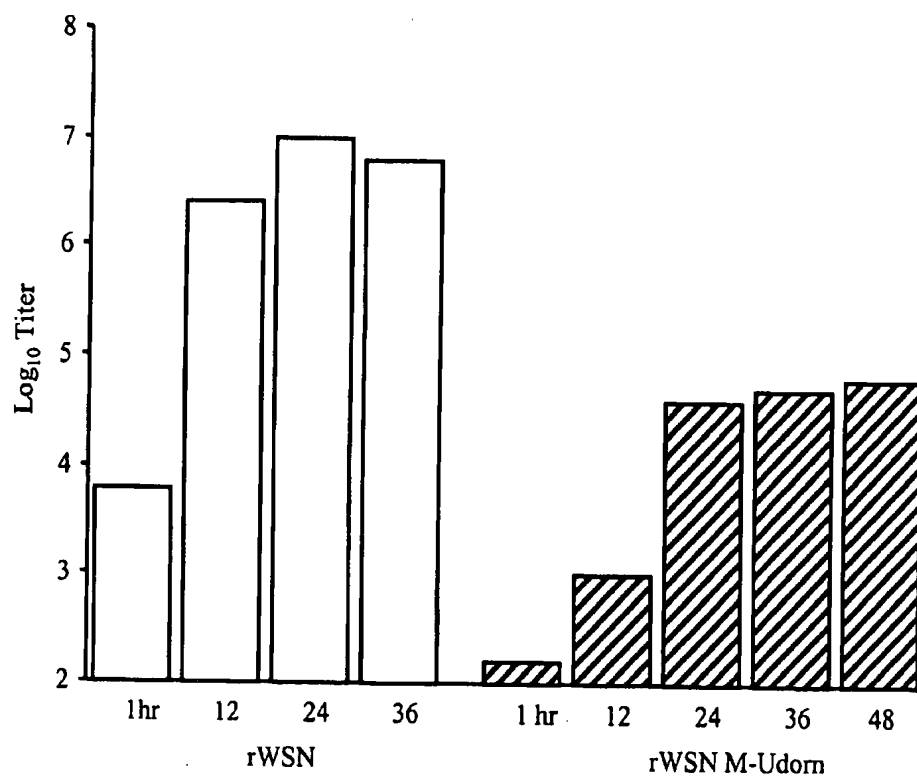


Fig. 34



**Fig. 35**

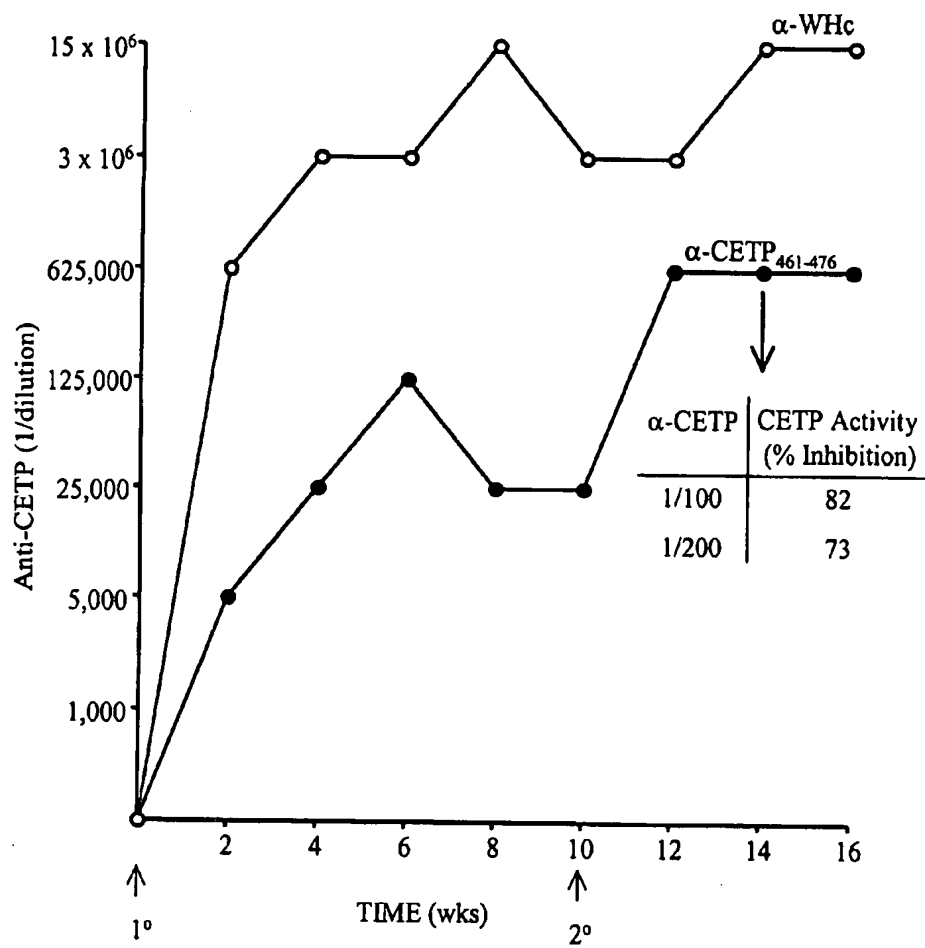
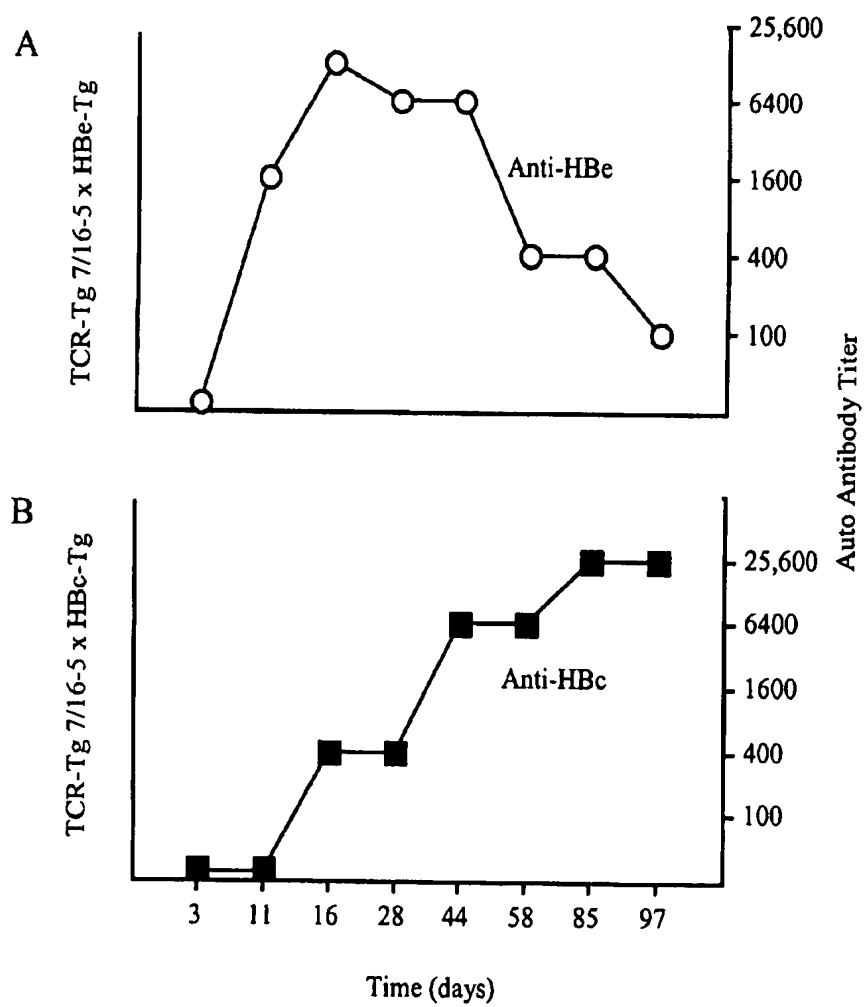
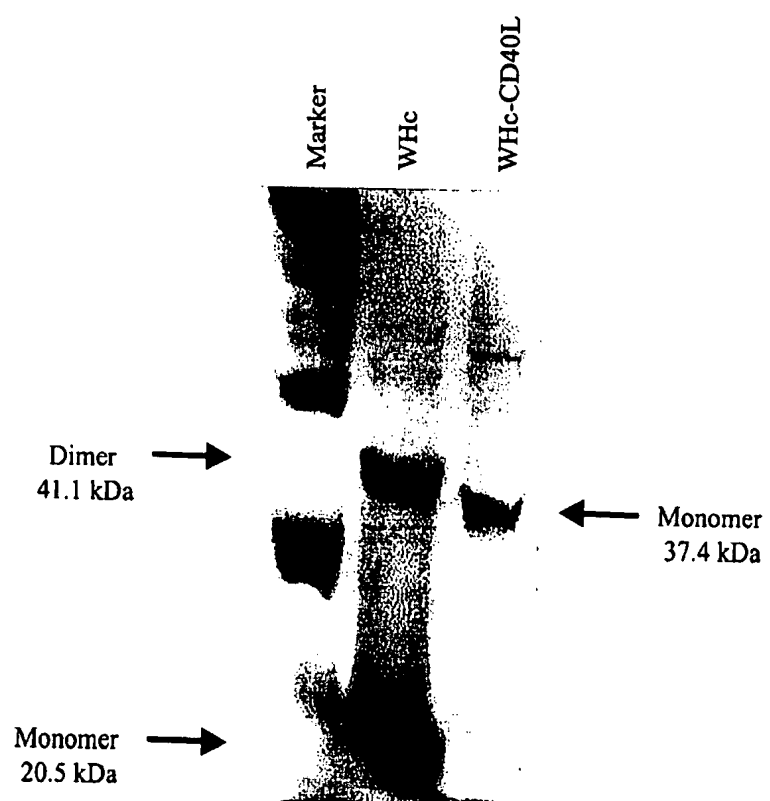


Fig. 36

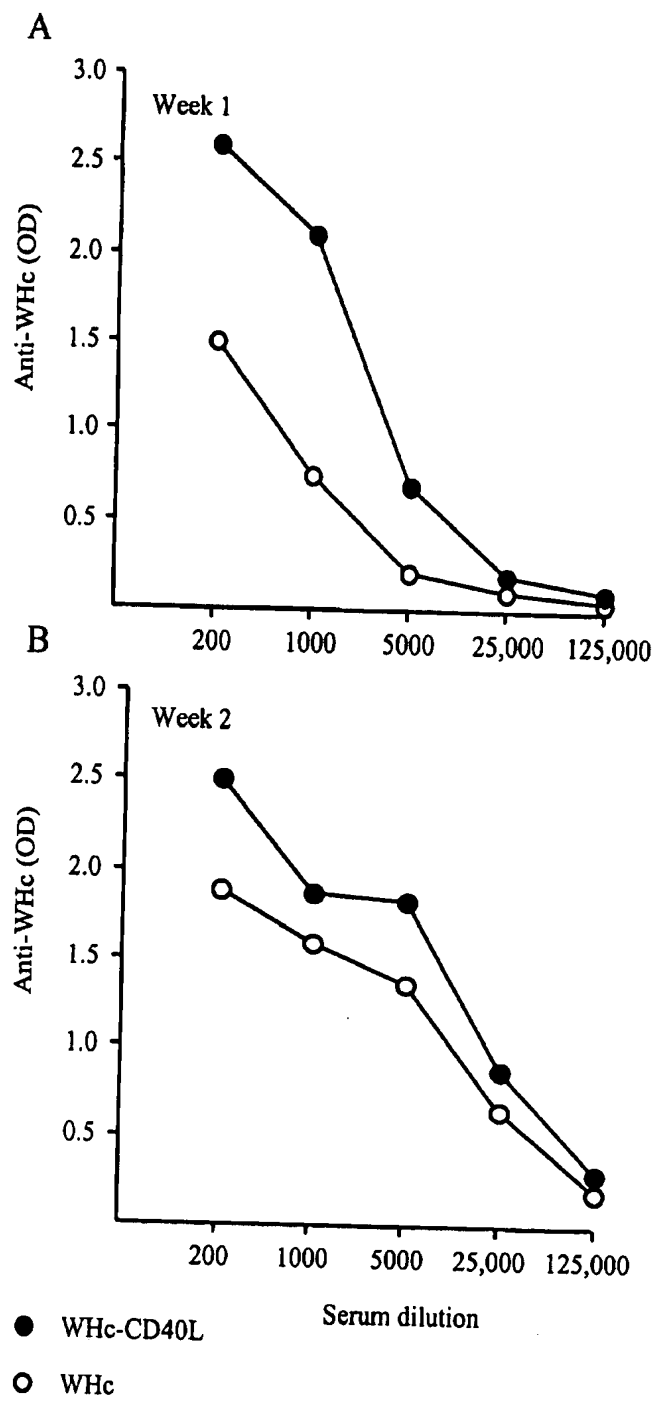
STRAIN



**Fig. 37**



**Fig. 38**



**Fig. 39**

Fig. 40

A Wild Type WHcAg DNA (SEQ ID NO:37)

ATGGACATAGATCCCTATAAAGAATTTGGTTCATCTTATCAGTTGTTGAATTTTCTTCC  
TTTGGACTTCTTTCTGACCTTAATGCTTTGGTGGACACTGCTACTGCCTTGTATGAAG  
AAGAGCTAACAGGTAGGGAACATTGCTCTCCGCACCATAACAGCTATTAGACAAGCTTTA  
GTATGCTGGGATGAATTAACTAAATTGATAGCTTGGATGAGCTCTAACATAACTTCTGA  
ACAAGTAAGAACAATCATTGTAAATCATGTCAATGATACCTGGGGACTTAAGGTGAGAC  
AAAGTTTATGGTTTCATTTGTCATGTCTCACTTTCGGACAACATACAGTTCAAGAATTT  
TTAGTAAGTTTTGGAGTATGGATCAGGACTCCAGCTCCATATAGACCTCCTAATGCACC  
CATTCTCTCGACTCTCCGGAACATACAGTCATTAGGAGAAGAGGAGGTGCAAGAGCTT  
CTAGGTCCCCCAGAAGACGCACTCCCTCTCCTCGCAGGAGAAGATCTCAATCACCGCGT  
CGCAGACGCTCTCAATCTCCATCTGCCAACTGCTGA

B Wild Type WHcAg (SEQ ID NO:1)

MDIDPYKEFGSSYQLLNFLPLDFFPDNLALVDTATALYEEELTGREHCSPHHTAIRQAL  
VCWDELTKLIAWMSSNITSEQVRTIIIVNHVNDTWGLKVRQSLWFHLSCLTFGQHTVQEF  
LVSFGVWIRTPAPYRPPNAPILSTLPEHTVIRRRGGARASRSPRRRTSPRRRRSQSPR  
RRRSQSPSANC

C Truncated WHcAg (SEQ ID NO:38)

MDIDPYKEFGSSYQLLNFLPLDFFPDNLALVDTATALYEEELTGREHCSPHHTAIRQAL  
VCWDELTKLIAWMSSNITSEQVRTIIIVNHVNDTWGLKVRQSLWFHLSCLTFGQHTVQEF  
LVSFGVWIRTPAPYRPPNAPILSTLPEHTVI



Fig. 41

A Wild Type GSHcAg DNA (SEQ ID NO:39)

ATGGACATAGATCCCTATAAAGAATTTGGTTCTTCTTATCAGTTGTTGAATTTTCTTCC  
TTTGGACTTTTTTCCTGATCTCAATGCATTGGTGGACACTGCTGCTGCTCTTTATGAAG  
AAGAATTAACAGGTAGGGAGCATTGTTCTCCTCATCATACTGCTATTAGACAGGCCTTA  
GTGTGTTGGGAAGAATTAACTAGATTAATTACATGGATGAGTGAAAATACAACAGAAGA  
AGTTAGAAGAATTATTGTTGATCATGTCAATAATACTTGGGGACTTAAAGTAAGACAGA  
CTTTATGGTTTCATTTATCATGTCTTACTTTTGGACAACACACAGTTCAAGAATTTTGT  
GTTAGTTTGGAGTATGGATTAGAACTCCAGCTCCTTATAGACCACCTAATGCACCCAT  
TTTATCAACTCTCCGGAACATACAGTCATTAGGAGAAGAGGAGGTTCAAGAGCTGCTA  
GGTCCCCCGAAGACGCACTCCCTCTCCTCGCAGGAGAAGGTCTCAATCACCGCGTCGC  
AGACGCTCTCAATCTCCAGCTTCCAACCTGCTGA

B Wild Type GSHcAg (SEQ ID NO:21)

MDIDPYKEFGSSYQLLNFLPLDFFPDNLALVDTAALYEEELTGREHCSPHHTAIRQAL  
VCWEELTRLITWMENTTEEVRRRIIVDHVNNTWGLKVRQTLWFHLSCLTFGQHTVQEFL  
VSFGVWIRTPAPYRPPNAPILSTLPEHTVIRRRGGSRAARSPRRRTPSPRRRRSQSPRR  
RRSQSPASNC

C Truncated GSHcAg (SEQ ID NO:40)

MDIDPYKEFGSSYQLLNFLPLDFFPDNLALVDTAALYEEELTGREHCSPHHTAIRQAL  
VCWEELTRLITWMENTTEEVRRRIIVDHVNNTWGLKVRQTLWFHLSCLTFGQHTVQEFL  
VSFGVWIRTPAPYRPPNAPILSTLPEHTVI

Fig. 42

A Wild Type HBcAg DNA (SEQ ID NO:57)

ATGGACATCGACCCTTATAAAGAATTTGGAGCTACTGTGGAGTTACTCTCGTTTTTGCC  
TTCTGACTTCTTTCCTTCAGTACGAGATCTTCTAGATACCGCCTCAGCTCTGTATCGGG  
AAGCCTTAGAGTCTCCTGAGCATTGTTACCTCACCATACTGCACTCAGGCAAGCAATT  
CTTTGCTGGGGGGAATAATGACTCTAGCTACCTGGGTGGGTGTTAATTTGGAAGATCC  
AGCATCCAGAGACCTAGTAGTCAGTTATGTCAACACTAATATGGGCCTAAAGTTCAGGC  
AACTCTTGTGGTTTACATTTCTTGTCTCACTTTTGAAGAGAAAACCGTTATAGAGTAT  
TTGGTGTCTTTCGGAGTGTGGATTGCGACTCCTCCAGCTTATAGACCACCAAATGCCCC  
TATCCTATCAACACTTCCGAACTACTGTTGTTAGACGACGAGGCAGGTCCCCTAGAA  
GAAGAACTCCCTCGCCTCGCAGACGAAGTCTCAATCGCCGCGTCGCAGAAGATCTCAA  
TCTCGGGAATCTCAATGTTGA

B Wild Type HBcAg (SEQ ID NO:41)

MDIDPYKEFGATVELLSFLPSDFFPSVRDLLDTASALYREALSPEHCSPHHTALRQAI  
LCWGELMTLATWGVNLEDPASRDLVVS YVNTNMGLKFRQLLWFHISCLTFGRETVIEW  
LVSFVWIRTTPPAYRPPNAPILSTLPETTVVRRRGRSPRRRTSPRRRRSQSPRRRRSQ  
SRESQC

C Truncated HBcAg (SEQ ID NO:58)

MDIDPYKEFGATVELLSFLPSDFFPSVRDLLDTASALYREALSPEHCSPHHTALRQAI  
LCWGELMTLATWGVNLEDPASRDLVVS YVNTNMGLKFRQLLWFHISCLTFGRETVIEW  
LVSFVWIRTTPPAYRPPNAPILSTLPETTVV